

## Product Description

Description:	16.0MHz GSX-333/112NF SM Crystal
Product family:	GSX-333
Category:	SM Quartz Crystal
Order code:	MA06152

## Features

- ▶ *Qualified for use with CSR Bluetooth chipsets*
- ▶ *Metal lid can be grounded to minimise EMI*
- ▶ *Seam sealed for excellent long-term stability*
- ▶ *Ultra-miniature for maximum space saving*

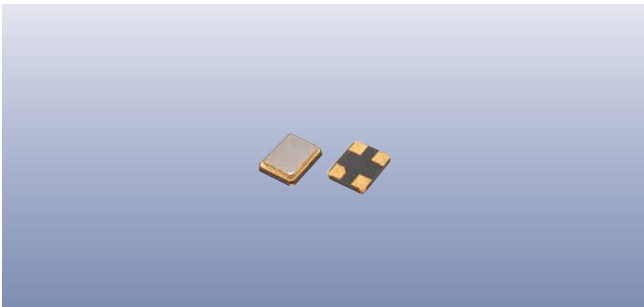
## Additional Information

For further information regarding packaging, construction, material composition, soldering profile and environment, please refer to *GSX-333 Product Information sheet*

For dimensions, refer to package drawing: *D0262-A*

## Electrical Specifications

<i>Parameter</i>	<i>Value</i>	<i>Notes</i>
<i>Nominal frequency:</i>	16.0MHz	
<i>Calibration tolerance:</i>	±10ppm max	At 25°C ±3°C
<i>Temperature stability:</i>	±10ppm max	Referred to frequency at 25°C
<i>Operating temperature range:</i>	-20 to +75°C	
<i>Storage temperature range:</i>	-40 to +85°C	
<i>Circuit condition:</i>	9pF	
<i>Static capacitance (C<sub>0</sub>):</i>	2.0pF max	
<i>Pulling sensitivity:</i>	9ppm / pF min	Load @ 9pF
<i>Oscillation mode:</i>	Fundamental	
<i>Equivalent series resistance:</i>	80Ω max	
<i>Test drive level:</i>	10μW	



## Construction

- ▮▮▮▮ *Ceramic body with gold-plated pads*
- ▮▮▮▮ *Metal lid, seam sealed*

## Composition



This product is lead-free, and is fully compliant with the RoHS directive 2002/95/EC



## Packaging & Handling

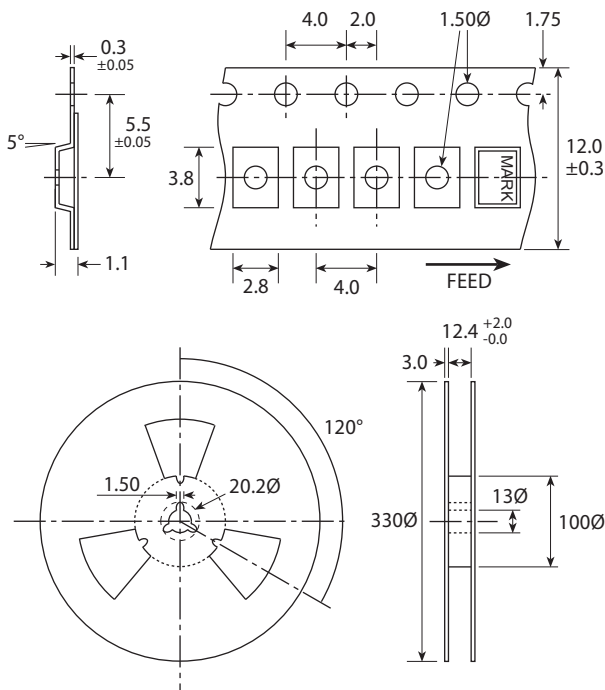
Production quantities supplied on T & R, 3k pcs per reel.  
Small quantities may be supplied on tape (no reel), or in bulk.

## Marking

FREQUENCY		Marking type: Laser	
T	DC	DC = Date code in YW, as shown below	
		Example: "zd" = 2004 week 30	

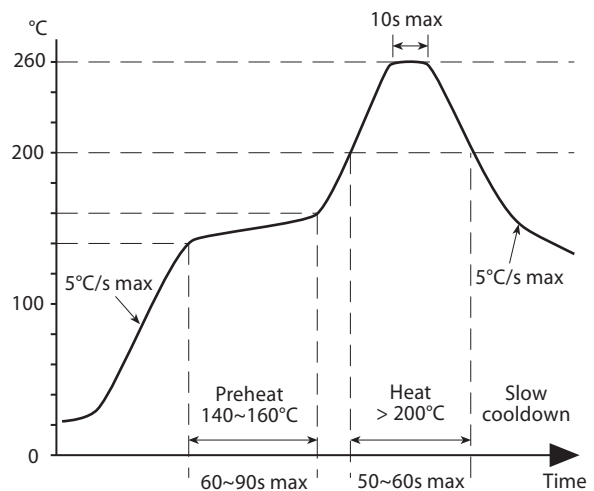
Year	2001	2002	2003	2004	Week codes:
	2005	2006	2007	2008	
Code	Z	z	Z	z	A ~ Z: weeks 1 to 26 a ~ z: weeks 27 to 52

## Tape & Reel Specification

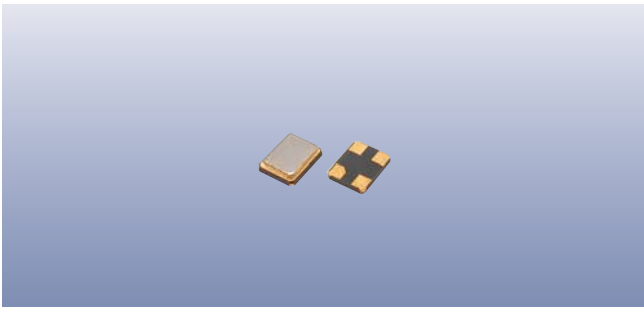


Not to scale. Dimensional tolerances ±0.1mm unless otherwise stated

## Soldering Profile



Maximum solder resistance: 260°C x 10 secs x 2.



## Product Family

**GSX-333**

## Construction

- ▮▮▮▮ *Ceramic body with gold-plated pads*
- ▮▮▮▮ *Metal lid, seam sealed*

## Dimensions (mm) Scale 3:1

